

# ASSIGNMENT 1

Textbook Assignment: “Plans, Specifications, and Color Coding” and “Advanced Base Functional Components (ABFC),” chapters 1 and 2, pages 1-1 through 2-5.

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| <p>1-1. Utilitiesmen use different types of plans and drawings. These plans and drawings are developed by immediate supervisors, architects, and engineers.</p> <p>1. True<br/>2. False</p> <p>1-2. You are excavating a trench for a 6-inch main sewer line. You should refer to what type of plan to identify possible underground utilities?</p> <p>1. Structural<br/>2. Electrical<br/>3. Civil<br/>4. Mechanical</p> <p>1-3. Before installing a 3/4-inch waterline in a facility wall, you may need to know the construction of the wall by looking at what plan?</p> <p>1. Structural<br/>2. Architectural<br/>3. Civil<br/>4. Mechanical</p> <p>1-4. You must identify the location of the power disconnect for a water heater. What plan contains this information?</p> <p>1. Mechanical<br/>2. Electrical<br/>3. Structural<br/>4. Architectural</p> | <p>1-5. The primary parts of a mechanical plan are the views of fixtures and equipment and information and notes.</p> <p>1. True<br/>2. False</p> <p>1-6. There is what total number of dimensions in an isometric drawing?</p> <p>1. Six<br/>2. Two<br/>3. Three<br/>4. Nine</p> <p>1-7. Many Utilitiesman cannot picture the piping installation when working from a floor plan to elevation and back again. For this reason, they need an isometric drawing that combines</p> <p>1. elevation views and the floor plan<br/>2. two dimensions<br/>3. three dimensions<br/>4. pictorial views and elevations</p> <p>1-8. Isometric drawings are always drawn to scale.</p> <p>1. True<br/>2. False</p> |
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1-9. What lines in an orthographic projection remain the same in an isometric sketch?

1. Horizontal
2. Projected
3. Rectangular
4. Vertical

1-10. Horizontal lines in an isometric drawing are projected at what angles?

1.  $45^\circ$  and  $30^\circ$
2.  $60^\circ$  and  $90^\circ$
3.  $90^\circ$  and  $45^\circ$
4.  $60^\circ$  and  $30^\circ$

1-11. In an isometric pipe diagram, the lines of the room are drawn with light lines and the lines of the pipe diagram with dark lines for which of the following reasons?

1. To give the effect of sections in the room
2. To make the room transparent
3. To make the walls look invisible
4. Each of the above

1-12. When dimensioning an isometric pipe diagram, you should use what documents to ensure accurate information in the drawing?

1. Architect's plans and "rough in" sheets
2. Technical manuals and mechanical plans
3. Mechanical plans only
4. Technical manuals and "rough in" sheets

1-13. A bathroom is 5 feet wide, 8 feet long, and 7 feet 6 inches high in your isometric drawing. Your scale is  $1/2$  inch = 1 foot. Your line for the height of the bathroom should measure

1. 3.25 inches
2. 3.5 inches
3. 3.0 inches
4. 3.75 inches

1-14. Draw a room 8 feet by 10 feet by 8 feet in an isometric representation with the ceiling and two walls removed. Use a scale of  $1/4$  inch = 1 foot. If the walls are 6 inches thick, your line should be what length?

1. 0.0125 inch
2. 0.125 inch
3. 0.1375 inch
4. 0.387 inch

1-15. Project guide specifications are divided into what number of specification divisions?

1. 8
2. 13
3. 17
4. 21

1-16. What division of the specifications includes site utilities?

1. Site work
2. Mechanical
3. Conveying systems
4. Specialties

1-17. You are installing warning signs for a new water treatment plant. Specifications for the signs are covered in what division?

1. Mechanical
2. Specialties
3. Wood and plastics
4. Metals

1-18. You are installing plumbing in a K-span building. Other than the mechanical division, you can obtain additional plumbing information from what other specification division?

1. Expeditionary structures
2. Special construction
3. Specialties
4. Doors and windows

1-19. In what section of the specific plumbing requirements is the grade of the belowground level sanitary sewer specified?

1. 1a-01
2. 1a-02
3. 1a-03
4. 1a-04

1-20. In what section of the specific plumbing requirements does it say what distance the sanitary sewer vent should extend through the roof?

1. 1a-02
2. 1a-03
3. 1a-04
4. 1a-05

1-21. In the specific working requirements, what type of copper tubing is specified for water piping buried in the ground?

1. "L" hard
2. "L" soft
3. "K" soft
4. "K" hard

1-22. In the specific working requirements, what is the distance of the kitchen sink from the floor to the top of the rim?

1. 33 inches
2. 34 inches
3. 35 inches
4. 36 inches

1-23. In the specific plumbing requirements, what type of water supply valve is required on a water closet?

1. Brass gate valve
2. Brass I.P. valve
3. Chromium gate valve
4. Chromium I.P. valve

1-24. In the specific plumbing requirements, what is the kilowatt requirement for the heating elements of the water heater?

1. 11 and 3
2. 14 and 3
3. 15 and 1
4. 16 and 1

1-25. In the specific plumbing requirements, if the working pressure of the hot- and cold-water piping is 40 psi, what is the required test pressure?

1. 40 psi
2. 50 psi
3. 60 psi
4. 70 psi

1-26. In what section of the specific plumbing requirements does it say whether insulation is required on aboveground piping?

1. 1a-11
2. 1a-10
3. 1a-09
4. 1a-08

1-27. What types of specifications are written technical descriptions of materials and supplies used by the Navy and other federal government departments?

1. Military
2. Federal
3. NAVFAC
4. MIL-SPECS

1-28. What manual lists specifications developed by NAVFAC?

1. NAVFAC MO-327
2. NAVFAC MO-119
3. NAVFAC P-455
4. NAVFAC P-405

1-29. Determining requirements and developing methods and schemes of action for construction of a project defines what term?

1. Designing
2. Programing
3. Planning
4. Estimating

1-30. You have been assigned as crew leader to renovate a bathroom. What is the first action you should take?

1. Select a crew
2. Gather materials
3. Study guides on ways to accomplish the job
4. Comprehend what is to be done

1-31. When planning a job, ask yourself what the crew can reasonably accomplish. Which of the following questions can be answered by using this technique?

1. What length of time is required to complete the job
2. Who is to accomplish what
3. Both 1 and 2 above
4. What types of materials and tools are needed

1-32. Set realistic goals for each workday. To realize these goals, you should encourage your crew to

1. work independently
2. work as fast as possible
3. work together as a team
4. analyze each goal assignment

1-33. In planning the time to complete a job, you must think of man-hours of direct labor as well as which of the following factors?

1. Administration, leave, and liberty
2. Training, safety, and operations
3. Safety, leave, liberty, and administration
4. Leave, liberty, safety, and training

1-34. Stress safety on the job. This attitude also applies to tools. The primary consideration for tool safety is that

1. the tools are sized correctly
2. the people are checked out properly on their use
3. the tools are on the job on time
4. the supervisor knows how to use the tools

1-35. Before starting a job, be sure your people

1. understand the plans and specifications
2. know what is to be done on the job
3. know the project supervisor
4. have transportation available to and from the job

1-36. What question should be your first concern when checking tools and equipment before their use?

1. Are the tools safe
2. Are the people expendable
3. Are the tools absolutely necessary
4. Is the government saving money

1-37. As a crew leader, you should ensure power tools have what marking that indicates they are safe for use?

1. Manufacturer safety notice
2. Minor property number
3. Preventive maintenance check date
4. Current safety color code

1-38. What is the primary reason for inspecting the work of your crew?

1. To criticize shortcomings
2. To use available man-hours most productively
3. To teach, guide, and direct crew members
4. To point out sloppy workmanship

1-39. A crew leader gets a varied level of crew experience by performing which of the following actions?

1. Inspecting work regularly
2. Being on the job at all times
3. Placing crew members in special schools
4. Rotating crew member assignments on the job

1-40. What is the standard color code for toxic and poisonous materials?

1. Green
2. Gray
3. Yellow
4. Brown

1-41. What color code indicates flammable material?

1. Green
2. Yellow
3. Gray
4. Blue

1-42. You find a gray cylinder in the mechanical room of the dental clinic. This cylinder may contain what type of dangerous material?

1. Physically dangerous
2. Anesthetics and harmful
3. Oxidizing
4. Toxic and poisonous

1-43. When the diameter of a pipeline for hazardous material is smaller than 3/4 inch, you should use what method to identify the material conveyed by the piping?

1. Etched metal tags that are securely fastened to the pipe
2. Standard-sized lettering stenciled on the pipe
3. Paint on the pipe that matches the surrounding color
4. Black or white lettering on the pipe

1-44. You are installing a 6-inch POL line on a fuel pier. What size should the lettering on the pipe be to identify the material hazard present?

1. 1 inch
2. 2 inches
3. 1 1/4 inches
4. 1 1/2 inches

1-45. Within the primary color coding system, there is a total of how many colors for use in identifying hazardous materials?

1. Six
2. Five
3. Four
4. Three

1-46. The title should be painted in what color if the background color of a cylinder is brown?

1. Red
2. Green
3. White
4. Orange

1-47. MIL-STD-101B is a complete listing of the

1. primary warning colors for toxic materials
2. secondary warning colors for toxic materials
3. types of compressed gas cylinders
4. exact specifications for piping systems

1-48. Shatterproof cylinders must be stenciled with the phrase "Non-Shat" at what position from the title?

1. Horizontally at 60 degrees
2. Longitudinally at 90 degrees
3. Horizontally at 90 degrees
4. Longitudinally at 60 degrees

1-49 You can locate information concerning the Advanced Base Functional Component (ABFC) system in what NAVFAC publication?

1. MO-212
2. P-335
3. P-404
4. P-437

1-50. The Facilities Planning Guide has two volumes, each with three parts. You can locate plot plans for components in

1. Volume 1, Part 1
2. Volume 2, Part 1
3. Volume 1, Part 2
4. Volume 1, Part 2

1-51. The ABFC system revolves around a building-block type of system. What is the largest type of block?

1. An assembly
2. A facility
3. A component
4. A plot plan

1-52. The portable bath unit operates on what voltage?

1. 110 V
2. 208 V
3. 220 V
4. 440 V

1-53. Each shower stand assembly is equipped with what total number of shower heads?

1. One
2. Two
3. Three
4. Four

1-54. What total number of 1-inch-diameter 7 1/2 foot hoses are supplied for the water hose assembly?

1. Seven
2. Six
3. Five
4. Four

1-55. The mixing valve assembly provides heated water to the shower heads at what temperature?

1. 105°F
2. 110°F
3. 115°F
4. 120°F

1-56. When setting up the bath unit, you should locate it so that drainage from the shower area is carried downstream or downhill to prevent wastewater from being drawn back into the water source. If this is not possible, what should be done?

1. Dig a ditch or build a dike around the shower stands to allow wastewater to drain away
2. Have the drainage pumped into another water source
3. Have the drainage re-utilized within the camp
4. Dig a catchment basin to hold the drainage

1-57. For what reason should you never connect the bath unit water heater to an untested water supply?

1. To prevent using water with possible floating debris
2. To prevent equipment damage
3. To avoid excessive strain on the water pump
4. To prevent use of water that is possibly contaminated

1-58. You should locate the water pump on a level surface that is approximately how many feet from the water source?

1. 10
2. 20
3. 30
4. 40

1-59. You should locate the water heater on level ground that is approximately what distance from the water pump?

1. 5 feet
2. 6 feet
3. 7 feet
4. 8 feet

1-60. The shower stand should be erected at what distance from the mixing valve?

1. 40 feet
2. 30 feet
3. 20 feet
4. 10 feet

1-61. To provide internal lubrication for the fuel pump when firing the fuel burner with gasoline, you should mix what amount of oil with every 5 gallons of gasoline?

1. 1 pint
2. 5 pints
3. 3 pints
4. 2 pints

1-62. During the start-up procedure, you should perform what step first?

1. Open the fuel valve and turn ON the load limit switch and power
2. Remove the plug and fill the coupling with water
3. Ensure the fuel pressure gauge is at 100 psi
4. Turn the limit switch to the OFF position and connect the power